

Anti-RTN4 Antibody (7X270)

Product Details

Ig Type:	hIgG4
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	7X270
Purification:	Affinity-chromatography

Applications

Verified Activity:	Overlay Peak curve showing A549 cells stained with TMAH-01057 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10 ⁶ cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-human IgG (H+L) at 1:200 dilution for 35min at 4°C. Control antibody (green line) was human IgG (1ug/1*10 ⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.
Application:	ELISA,FCM
Recommended	FCM:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human RTN4 Protein
Antigen Species:	Human
Gene ID:	57142
Uniprot ID:	Q9NQC3
Synonyms:	RTN 4
Biology Area:	Neuroscience

Research Background

Required to induce the formation and stabilization of endoplasmic reticulum (ER) tubules. They regulate membrane morphogenesis in the ER by promoting tubular ER production. They influence nuclear envelope expansion, nuclear pore complex formation and proper localization of inner nuclear membrane proteins. However each isoform have specific functions mainly depending on their tissue expression specificities (Probable). Developmental neurite growth regulatory factor with a role as a negative regulator of axon-axon adhesion and growth, and as a facilitator of neurite branching. Regulates neurite fasciculation, branching and extension in the developing nervous system. Involved in down-regulation of growth, stabilization of wiring and restriction of plasticity in the adult CNS. Regulates the radial migration of cortical neurons via an RTN4R-LINGO1 containing receptor complex. Acts as a negative

regulator of central nervous system angiogenesis. Inhibits spreading, migration and sprouting of primary brain microvascular endothelial cells (MVECs). Also induces the retraction of MVECs lamellipodia and filopodia in a ROCK pathway-dependent manner. Mainly function in endothelial cells and vascular smooth muscle cells, is also involved in immune system regulation (Probable). Modulator of vascular remodeling, promotes the migration of endothelial cells but inhibits the migration of vascular smooth muscle cells. Regulates endothelial sphingolipid biosynthesis with direct effects on vascular function and blood pressure. Inhibits serine palmitoyltransferase, SPTLC1, the rate-limiting enzyme of the novo sphingolipid biosynthetic pathway, thereby controlling production of endothelial sphingosine-1-phosphate (S1P). Required to promote macrophage homing and functions such as cytokine/chemokine gene expression involved in angiogenesis, arteriogenesis and tissue repair. Mediates ICAM1 induced transendothelial migration of leukocytes such as monocytes and neutrophils and acute inflammation. Necessary for immune responses triggered by nucleic acid sensing TLRs, such as TLR9, is required for proper TLR9 location to endolysosomes. Also involved in immune response to LPS. Plays a role in liver regeneration through the modulation of hepatocytes proliferation. Reduces the anti-apoptotic activity of Bcl-xl and Bcl-2. This is likely consecutive to their change in subcellular location, from the mitochondria to the endoplasmic reticulum, after binding and sequestration. With isoform C, inhibits BACE1 activity and amyloid precursor protein processing. Regulates cardiomyocyte apoptosis upon hypoxic conditions. With isoform B, inhibits BACE1 activity and amyloid precursor protein processing.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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